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JUNE 1, 1990 - MONTANA WATER SUPPLY OUTLOOK

Cool weather during May and average or above average mountain precipitation helped maintain snowpacks at the higher elevations. Runoff in May was generally 10 to 40 percent below average on most drainages. The Beaverhead River streamflows continue to be quite low with natural flows in May being about one-third of average. Because of the May precipitation and reduced snowmelt, streamflows for the remaining spring and summer months are expected to be a little better than forecasted on May 1. In general, streams in the northern, central and south-central parts of Montana should have above average runoff while most other areas should have a little below average runoff. The extreme southwestern drainages are still expected to have well below average runoff. Irrigation supplies should be adequate in most drainages as a result of good high elevation snowpack this late in the season. Most reservoirs except for Canyon Ferry, Clark Canyon, Deadman's Basin, Fort Peck and Lima are full or should fill soon. The Surface Water Supply Index (SWSI) varies from -2.4 for the Beaverhead River to +3.2 for the Tobacco River of northwest Montana. The majority of basins are in the +0.5 to +2.0 range indicating a good water supply for most of Montana.

SNOWPACK

Cool temperatures that delayed snowmelt and additonal snowfall in May combined to keep high elevation snowpacks above average over much of the state. Snowpack levels are near or above average in the Kootenai, Flathead and Lower Clark Fork River drainages, west of the Divide and the St. Mary, Sun, Teton, Marias, Judith, Musselshell, Smith, Belt and Yellowstone River drainages, east of the Divide. Other areas, primarily the southwest part of the state, have below average snowpack. However, even these areas have shown some improvement over previous months. The good high elevation snowpack should provide adequate, sustained streamflows well into the summer period unless temperatures are well above average and precipitation is well below average. All low and most mid-elevation areas are now snow free.

PRECIPITATION

Mountain precipitation for May was near to above average over all the state. Many of the storms deposited snow at the higher elevations. Northwest drainages generally had above average amounts while southwest drainages were generally near average. Most of precipitation occurred in the last half of the month. Some wetter areas, east of Kalispell, reported precipitation amounts approaching 18 inches. Most areas in the Jefferson River drainage reported near average May precipitation which is an improvement over the deficient moisture patterns that have persisted for some time in the drainage. Other basins reporting near average precipitation are the Missouri Main Stem, Sun, Marias, Teton, St. Mary and Milk. The Lower Yellowstone headwaters in Wyoming reported a little below average precipitation.

RESERVOIRS

Most irrigation reservoirs in the state are full or nearly full except for Lima, Clark Canyon and Deadman's Basin. Some reservoirs are being held down to accomodate runoff from high elevation snowmelt. With the exception of the above reservoirs, Canyon Ferry and Fort Peck, all reservoirs are expected to fill this spring.

STREAMFLOW

Even though most areas had average or above average mountain precipitation, most drainages had below average runoff as a result of cool temperatures that delayed snowmelt. The lowest flows were in the Red Rock and Beaverhead Rivers where lack of snow and irrigation withdrawls combined to produce well below average runoff. Most drainages in the state had runoff in the 60 to 80 percent of average range. Streamflows for the remaining spring and summer months are expected to be near to a little above the values forecast on May 1 for most drainages. In general, most streams in the Flathead Basin, those with headwaters along the Continental Divide west of Great Falls, snowfed streams in Central Montana and the Tongue and Little Bighorn Rivers can expect near average runoff. All others are forecast to produce below average runoff with the lowest runoff expected from streams in the southwest corner of the state. However, the residual high elevation snowpack will help sustain streamflows well into the summer on drainages that have high elevation headwaters. Most major drainages in the state reached peak snowmelt runoff between May 30 and June 3. The Gallatin River should reach peak snowmelt runoff just prior to mid-June. Rock Creek and the Yellowstone, Boulder, Stillwater and Clarks Fork Rivers should reach peak snowmelt runoff just after mid-June.

SOIL MOISTURE

Mountain soils are generally wet from recent rains and snowmelt. Lower elevations, particularily in the southern half of the state, are drying. Moisture levels will continue to fluctuate, up and down, with precipitation and warm drying temperatures on those areas not having snow cover.

SURFACE WATER SUPPLY INDEX

The Soil Conservation Service has implemented a program to calculate a Surface Water Supply Index (SWSI) for various basins in Montana. SWSI is a measure of available surface water supplies during spring and summer months. The index ranges from -4.0 to +4.0. A SWSI of -4.0 represents an extremely dry situation, 0 is a near normal situation and +4.0 represents an extremely wet situation. The SWSI provides a scale to evaluate various levels of dryness or wetness and provides a means to compare or evaluate conditions across the state. SWSI considers snowpack, mountain precipitation, soil moisture and reservoir storage.

SWSI SCALE

SWSI	DESIGNATION
+3.0 to +4.0	Extremely wet
+2.0 to +3.0	Moderately wet
+1.0 to +2.0	Slightly wet
-1.0 to +1.0	Near average
-1.0 to -2.0	Slightly dry
-2.0 to -3.0	Moderately dry
-3.0 to -4.0	Extremely dry

SWSI as of June 1, 1990 for the remainder of 1990 irrigation season.

SWSI	BASIN
+3.2	Tobacco River
+2.0	Clark Fork River above Blackfoot River
+2.1	Blackfoot River
+2.1	Clark Fork River above Missoula
+1.1	Bitterroot River
+1.8	Clark Fork River below Bitterroot River
-2.4	Beaverhead River
-0.2	Ruby River
-0.5	Big Hole River
-0.7	Boulder River (Jefferson)
-0.9	Jefferson River
-0.9	Madison River
-0.2	Gallatin River
-0.7	Missouri River above Canyon Ferry
+2.8	Smith River
+1.3	Sun River
+1.4	Marias River
+0.9	Musselshell River
+0.1	Milk River
+0.6	Yellowstone River above Livingston
+1.5	Shields River
+1.7	Boulder River (Yellowstone)
+1.3	Stillwater River (Yellowstone)
+1.4	Clarks Fork River
+1.7	Rock-Red Lodge Creek
+1.0	Yellowstone River above Bighorn River
+1.4	Little Bighorn River
+2.3	Tongue River

KOOTENAI RIVER BASIN in Montana

Cool weather and twice average mountain precipitation helped hold the high elevation snowpack. Currently, the upper elevation snowpack in British Columbia is about average for this time of year. In Montana, the high elevation snowpack is well above average. The heaviest May precipitation of over 13 inches was recorded at the Stahl Peak SNOTEL site. May runoff was a little below average. The streamflows for the remainder of the season are still expected to be below average on tributaries to the Kootenai River in Montana but a little better than forecast last month. The high elevation snowpack should hold streamflows up well into the summer months. Mainstem runoff should be near to a little above average. The Surface Water Supply Index (SWSI) is +3.2 for the Tobacco River.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
LAKE KOOCANUSA	5748.0	3173.0	3096.0	3183.0

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
EAST KOOTENAI in B.C.	14	119	125
KOOTENAI MAINTSTEM in MT	6	149	144
TOBACCO	2	137	152
FISHER	1	0	0
YAAK	3	154	140
KOOTENAI in MT	9	150	143
KOOTENAI ab Bonners Ferry	23	130	132

The average is computed for the 1961-1985 base period.

FLATHEAD RIVER BASIN

As a result of cool temperatures and some snowfall in May, the high elevation snowpack is above average in most areas. May mountain precipitation was about 160 percent of average. Streamflows varied from a little above average on the North Fork Flathead to a little below average on the Middle and South Forks. Streamflows for the remaining spring and summer months are expected to be near to a little below average. Peak snowmelt runoff occurred on May 31 or June 1 on the major Flathead streams.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
CAMAS (4)	45.2	34.2	23.6	31.3
MISSION VALLEY (8)	100.0	81.1	67.0	67.9
HUNGRY HORSE	3451.0	2798.0	2281.0	2663.0
FLATHEAD LAKE	1791.0	1532.0	1509.0	1468.0

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
NORTH FORK FLATHEAD	7	142	154
MIDDLE FORK FLATHEAD	4	114	118
SOUTH FORK FLATHEAD	2	145	160
STILLWATER-WHITEFISH	4	165	179
SWAN	5	117	127
MISSION VALLEY	3	109	116
LITTLE BITTERROOT-ASHLEY	1	0	0
JOCKO	1	66	82
FLATHEAD	16	125	136

The average is computed for the 1961-1985 base period.

UPPER CLARK FORK RIVER BASIN

During May, the mountain precipitation was above average at most stations and about 120 percent of average for the basin. Cool weather delayed snowmelt and some high elevation stations now have above average snowpack for this date. All low and most mid-elevations are now snow free. Runoff during May was below average on the Blackfoot River Drainage and well below average on the Clark Fork above the Blackfoot River. Most major streams in the basin reached peak snowmelt runoff on May 31 or June 1. Streamflows for the remaining spring and summer months are expected to still be below average even though conditions have improved. Drainages with high elevation headwaters should see flows hold up until the snowpacks are substantially gone. The Surface Water Supply Index (SWSI) is +2.0 for the Clark Fork River above the Blackfoot River, +2.1 for the Blackfoot River and +2.1 for the Clark Fork River above Missoula.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
GEORGETOWN LAKE	31.0	30.3	27.8	26.5
LOWER WILLOW CREEK	4.9	5.1	5.0	4.5
NEVADA CREEK	12.6	12.7	12.4	11.6

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
CLARK FORK ab FLINT CREEK	7	115	76
FLINT CREEK	5	38	14
ROCK CREEK	1	117	109
CLARK FORK ab BLACKFOOT	13	112	76
BLACKFOOT	7	83	76
UPPER CLARK FORK	18	97	79

The average is computed for the 1961-1985 base period.

BITTERROOT RIVER BASIN

May mountain precipitation was about 135 percent of average. Some of this moisture fell as snow at the higher elevations. The cool temperatures that delayed melt and added snowfall have resulted in near average snowpack at the higher elevations. All low and most mid-elevations are snow free. Runoff during May was below to well below average. Most streams reached the highest flows of the season at the end of May. Streamflows for the rest of the spring and summer period are expected to be a little better than forecasted on May 1 but are still below average. The Surface Water Supply Index (SWSI) is +1.1 for the Bitterroot River.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
PAINTED ROCKS LAKE	31.7	33.4	31.7	30.4
COMO	34.9	31.7	29.3	28.2

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
WEST FORK BITTERROOT	4	100	69
EAST SIDE BITTERROOT	2	117	109
WEST SIDE BITTERROOT	6	102	71
BITTERROOT	12	105	77

The average is computed for the 1961-1985 base period.

LOWER CLARK FORK RIVER BASIN

The mountain precipitation during May was about 135 percent of average. At the higher elevations, much of this moisture fell as snow. Cool temperatures during the month retarded snowmelt and now the higher elevation stations report near average snowpack. Runoff during May was generally below average. Streamflows for the remaining spring and summer period are expected to be a little better than forecast on May 1 but are still below average. Peak snowmelt runoff occurred on most streams on May 31 or June 1. The Surface Water Supply Index (SWSI) is +2.1 for the Clark Fork River above Missoula, +1.1 for the Bitterroot River and +1.8 for the Clark Fork River below Missoula.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
NOXON RAPIDS	335.0	331.3	315.1	270.4

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
UPPER CLARK FORK	18	97	79
BITTERROOT	12	105	77
LOWER CLARK FORK	11	129	107
CLARK FORK TOTAL	38	112	89
FLATHEAD	15	125	136
PEND OREILLE	53	122	109

The average is computed for the 1961-1985 base period.

JEFFERSON RIVER BASIN

May mountain precipitation was near average over the basin. In some areas, high elevation snowpack is near average as a result of new snowfall and cool temperatures that slowed melt during May. Runoff was well below average in all drainages. Streamflows for the remaining spring and summer months are expected to be slightly better than forecast on May 1 in northern tributaries and a little less than forecasted in the Beaverhead. All drainages are still expected to have well below average runoff. Peak snowmelt runoff has occurred on all streams. Storage in Lima Reservoir is about the same as reported on May 1 while Clark Canyon is a little less. Both levels are well below average. The Surface Water Supply Index (SWSI) is -2.4 for the Beaverhead River, -0.2 for the Ruby River, -0.5 for the Big Hole River, -0.7 for the Boulder River and -0.9 for the Jefferson River.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
LIMA	84.0	46.2	36.1	67.0
CLARK CANYON	255.6	97.6	111.8	171.0
RUBY RIVER	38.8	36.7	37.5	38.0

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
BEAVERHEAD	12	85	56
RUBY	5	113	94
BIGHOLE	9	91	79
BOULDER	3	138	79
JEFFERSON	23	95	73

The average is computed for the 1961-1985 base period.

MADISON RIVER BASIN

Mountain precipitation was about 120 percent of average for May. At the higher elevations, much of this moisture fell as snow. This new snowfall combined with cool temperatures that retarded snowmelt has resulted in near average June 1 snowpack at some higher elevation sites. Snow at low and most mid-elevations has melted. Runoff in May was below average. Streamflows for the remaining spring and summer months are expected to be a little better than forecast on May 1 but are still well below average. Peak snowmelt inflow into Hebgen Lake occurred about June 2. The Surface Water Supply Index (SWSI) is -0.9 for the Madison River.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
ENNIS LAKE	41.0	37.1	35.8	35.7
HEBGEN LAKE	377.5	367.0	318.4	298.3

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
MADISON above HEBGEN	5	66	63
LOWER MADISON	6	102	74
MADISON	11	88	71

The average is computed for the 1961-1985 base period.

GALLATIN RIVER BASIN

During May, the mountain precipitation was about 120 percent of average. Much of this moisture fell as snow at the higher elevations. This snowfall combined with cold temperatures that delayed melt resulted in June 1 high elevation snowpacks near average in some areas. This should provide good sustained streamflows into the summer months. Runoff during May was 20 to 25 percent below average. Streamflows for the remaining spring and summer months are expected to be a little better than forecast on May 1 but are still below average. The peak snowmelt runoff is expected to occur on the Gallatin River just before mid-June. The Surface Water Supply Index (SWSI) is -0.2 for the Gallatin River.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
MIDDLE CREEK	8.0	7.5	7.5	6.8

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
UPPER GALLATIN	4	114	77
EAST GALLATIN	6	119	77
GALLATIN	9	112	71

The average is computed for the 1961-1985 base period.

MAINSTEM MISSOURI RIVER BASIN

Near average mountain precipitation was reported for May. Snowfall during May and cool temperatures that delayed melt have resulted in above average snowpacks at the higher elevations. This snow will help hold up streamflows into the summer period. Runoff during May was below average on most streams. Runoff for the remaining spring and summer months is expected to be similar to that forecasted on May 1. Peak snowmelt runoff into Canyon Ferry Reservoir occurred about June 3. The Surface Water Supply Index (SWSI) is -0.7 for the Missouri River above Canyon Ferry.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
CANYON FERRY LAKE	2043.0	1540.0	1470.0	1672.0
HELENA VALLEY	9.2	8.2	7.1	7.5
LAKE HELENA	10.4	11.1	11.1	10.0
HAUSER & HELENA	61.9	63.6	63.6	60.5
HOLTER LAKE	81.9	81.4	80.5	74.9
FORT PECK LAKE (MAF)	18.9	11.6	13.0	15.7

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
MISSOURI HEADWATERS	37	96	71
WEST SIDE MISSOURI	4	156	72
SMITH-BELT	5	150	139
MAINSTEM MISSOURI	9	152	113
SUN-TETON-MARIAS	6	105	115
JUDITH-MUSSELSHELL	6	149	138
MISSOURI above FORT PECK	53	106	84
MILK RIVER	7	74	70
MISSOURI in MONTANA	59	105	83
MISSOURI blw YELLOWSTONE	103	120	93

The average is computed for the 1961-1985 base period.

SMITH-JUDITH-MUSSELSHELL RIVER BASINS

Mountain precipitation was about 120 percent of average in May. Cool temperatures that slowed snowmelt and additional snowfall in May resulted in above average June 1 snowpack at higher elevations. Snow at low and most mid-elevations has melted. Runoff during May varied from below average in the lower elevation basins to above average in those with more snow covered areas. Spring and summer streamflows are expected to be similar to forecasts issued on May 1 which were for near to a little below average runoff. Most streams reached peak snowmelt runoff on May 31, June 1 or June 2. The Surface Water Supply Index (SWSI) is +2.8 for the Smith River and +0.9 for the Musselshell River.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
SMITH RIVER	10.6	10.4	8.0	10.8
NEWLAN CREEK	12.4	11.1	8.9	10.6
BAIR	7.0	7.1	3.7	6.4
MARTINSDALE	23.1	22.9	15.0	17.4
DEADMAN'S BASIN	72.2	41.6	34.4	57.4

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
SMITH-BELT	5	150	139
JUDITH-MUSSELSHELL	6	149	138

The average is computed for the 1961-1985 base period.

SUN-TETON-MARIAS RIVER BASINS

Mountain precipitation was near average for May. Above average June 1 snowpacks at the higher elevations resulted from additional snowfall and cold temperatures that delayed melt. Low and most mid-elevation snow has melted. Runoff in May was generally a little below average. Peak snowmelt runoff occurred on May 31 on most streams. Runoff for the remainder of the spring and summer period is expected to be similar to that which was forecast on May 1 or near average on most streams. The Surface Water Supply Index (SWSI) is +1.3 for the Sun River and +1.4 for the Marias River.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
GIBSON	99.1	93.3	80.4	90.2
PISHKUN	32.0	30.6	27.2	29.0
WILLOW CREEK	32.2	32.1	29.6	28.0
LOWER TWO MEDICINE LAKE	11.9	12.4	12.5	12.4
FOUR HORNS LAKE	19.2	13.6	12.9	13.2
SWIFT	30.0	27.2	19.3	24.5
LAKE FRANCES	112.0	105.1	80.5	85.4
LAKE ELWELL (TIBER)	1347.0	871.5	826.7	662.6

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
SUN-TETON	3	114	117
MARIAS	3	103	115
SUN-TETON-MARIAS	6	105	115

The average is computed for the 1961-1985 base period.

ST. MARY and MILK RIVER BASINS

During May, mountain precipitation was near to a little above average. Most of the snow has melted in the Bear Paw Mountains while high elevations in the St. Mary headwaters have above average snowpack. Runoff during May was a little above average on most streams. Some high elevation watersheds had below average runoff because of slowed snowmelt. Streamflows for the remainder of the spring and summer season should be similar to the forecasts issued on May 1 which were for near to a little below average runoff. The Surface Water Supply Index (SWSI) for +0.1 for the Milk River Project.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
LAKE SHERBURNE	64.3	49.2	16.4	30.3
FRESNO	127.0	104.8	74.1	89.4
BEAVER CREEK	3.5	3.4	1.2	3.2
NELSON	66.8	54.7	35.3	41.7

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
MILK HEADWATERS	2	96	83
BEAR PAW	5	0	0
MILK RIVER	7	74	70
ST. MARY	3	120	111
ST. MARY and MILK	8	112	106
BOW RIVER in ALBERTA	8	102	136
OLDMAN RIVER in ALBERTA	2	123	208

The average is computed for the 1961-1985 base period.

UPPER YELLOWSTONE RIVER BASIN

Mountain precipitation was about 110 percent of average for May. Cool weather that slowed snowmelt and additional snowfall helped keep the high elevation snowpack near to above average for this time of year. This snowpack should help sustain good streamflows well into the summer. Runoff during May varied from 50 to 90 percent of average across the drainage with most streams being in the 65 to 80 percent of average range. The peak snowmelt runoff on the Yellowstone and its major tributaries is expected soon after mid-June. Streamflows for the remaining spring and summer months are expected to be near to a little higher than those forecast on May 1 which were for a little below average runoff. The Surface Water Supply Index (SWSI) is +0.6 for the Yellowstone River above Livingston, +1.5 for the Shields River, +1.7 for the Boulder River, +1.3 for the Stillwater River, +1.4 for the Clarks Fork River, +1.7 for Rock-Red Lodge Creeks and +1.0 for the Yellowstone River above the Bighorn River.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
MYSTIC LAKE	21.0	2.1	5.0	5.2
COONEY	27.4	21.9	24.5	19.1

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
YELLOWSTONE ab LIVINGSTON	10	105	95
SHIELDS	6	119	84
BOULDER-STILLWATER	3	133	137
CLARK'S FORK-ROCK CREEK	9	115	107
YELLOWSTONE above BIGHORN	24	114	100

The average is computed for the 1961-1985 base period.

LOWER YELLOWSTONE RIVER BASIN

Mountain precipitation in the Bighorn Mountains was about 90 percent of average for May. Cool weather that slowed snowmelt and additional snowfall resulted in high elevation snowpack above average for this time of year. Streamflows for May were generally below average. Runoff for the remaining spring and summer months is expected to be a little less than those forecast on May 1. Those forecasts were for below average runoff on most drainages except those flowing out of the north end of the Bighorn Mountains which should have a little above average runoff. The Surface Water Supply Index (SWSI) is +1.0 for the Yellowstone River above the Bighorn River, +1.4 for the Little Bighorn River and +2.3 for the Tongue River.

RESERVOIR STORAGE (1000AF)

RESERVOIR	USABLE CAPACITY	** USABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.
BIGHORN LAKE	1356.0	767.9	702.8	749.2
TONGUE RIVER	68.0	44.2	----	47.7

WATERSHED SNOWPACK ANALYSIS

WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	AVERAGE
BIG HORN (Wyoming)	27	136	94
LITTLE BIGHORN	2	259	121
TONGUE RIVER (Wyoming)	5	549	142
POWDER RIVER (Wyoming)	7	1992	85
YELLOWSTONE RIVER	52	135	100

The average is computed for the 1961-1985 base period.